

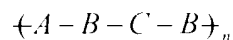
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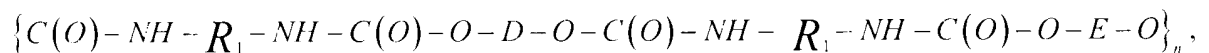
1 17. Biomedical polyurethane based on diisocyanate  
2 linked polyester polymer and diol components, said diol  
3 component having a uniform block-length.

1 18. Biomedical polyurethane according to claim 17,  
2 having the following formula:



3  
4  
5  
6 wherein the B denotes diisocyanate moieties, A denotes  
7 a polyester moiety, C denotes a diol moiety and n is the  
8 number of recurring units.

1 19. Biomedical polyurethane according to claim 17  
2 consisting of repeating units of the following formula



3  
4  
5  
6 wherein  $R_1$  is an n-butylene moiety, D is a polyester  
7 moiety, E is an n-butylene diol, an n-hexylene diol or a  
8 diethylene glycol based moiety and n indicates the number  
9 of repeating units.

1 20. Polyurethane according to claim 17, wherein E is  
2 diol or an XYX reaction product of diol (X) and  
3 1,4-butane-diisocyanate (Y).

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1 21. Polyurethane according to claim 17, wherein the  
2 blocklength is the same for at least 90%, more in  
3 particular at least 95% of the diol units.

1 22. Polyurethane according to claim 17, wherein the  
2 polyester is based on a polyester prepared by ringopening  
3 polymerization, preferably a random copolyester.

1 23. Polyurethane according to claim 22, wherein the  
2 random copolyester is a copolyester of lactide,  
3 glycolide, trimethylene carbonate and/or  $\epsilon$ -caprolacton.

1 24. Polyurethane according to claim 17, wherein the  
2 polyester is based on lactic acid, succinic acid,  
3 diethylene glycol, 1,4-butanediol, 1,6-hexanediol and/or  
4 diethylene glycol.

1 25. Polyurethane according to claim 17, obtainable by  
2 a process comprising reacting the polyester and an  
3 isocyanate endcapped diol component, the ratio of  
4 polyester endgroups to isocyanate groups being at least  
5 two, followed by reacting the resulting prepolymer with  
6 water.

1 26. Polyurethane according to claim 25, based on a  
2 copolyester of lactide and  $\epsilon$ -caprolacton containing 5 to  
3 95, preferably 40-60 % of units of lactide and 5 to 95,  
4 preferably 40-60 % of units of  $\epsilon$ -caprolacton, based on  
5 number.

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1 27. 1,4-Butanediol, 1,6-hexane diol, or diethyleneglycol  
2 based diol component having a uniform blocklength, said  
3 component being an XYX reaction product of diol (X) and  
4 1,4-butane-diisocyanate (Y).

1 28. Process for the preparation of a biomedical  
2 polyurethane according to claim 17, wherein the  
3 diol component is reacted with the reaction product of at  
4 least two moles of diisocyanate and the polyester.

1 29. Process for the preparation of a biomedical  
2 polyurethane according to claim 28, wherein the  
3 diol component is reacted with the reaction product of at  
4 least two moles of diisocyanate and the polyester.

1 30. Process for the preparation of a biomedical  
2 polyurethane according to claim 17, wherein the  
3 random copolymer is reacted with the reaction product of  
4 at least two moles of diisocyanate and the diol  
5 component.

1 31. Implants based on the biomedical polyurethanes  
2 according to claim 17, having a porosity of 50 to  
3 99 vol. %.

1 32. Use of a polyurethane according to claim 17, as  
2 biodegradable polymer implant in meniscus  
3 reconstruction.

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1 33. Biomedical polyurethane having a phase separated  
2 morphology, comprising soft segments of polyester and/or  
3 polyether components and hard segments, said hard segments  
4 consisting of diol component having a uniform block length,  
5 and wherein the diol component on the one hand and the  
6 polyester and/or polyether components on the other hand,  
7 have been linked by diisocyanate, preferably an aliphatic  
8 diisocyanate.